

**PASSAIC RIVER REMEDIAL INVESTIGATION
PROGRESS REPORT #13**

REPORTING PERIOD: November 8, 2003 through December 12, 2003

DATE: December 31, 2003

Contract Number: DACW41-02-D-0003
EPA IAG Numbers: DW96941915 and DW96941975
Task Orders: 0008/0011
MPI Project Numbers: 0285-924/4553-001
USEPA Remedial Project Manager: Alice Yeh 212-637-4427
MPI Project Manager: Bruce Fidler 201-398-4365
MPI Deputy Project Manager: Lisa Szegedi-Greco 201-398-4328
COE Contact: Beth Buckrucker 816-983-3581

Summary of Contract Actions					
Task Order	Contract Action	Date Signed	Cost	Fee	Total Cost
0008	ATP 1	10/15/02	\$791,654	\$60,956	\$852,610
0008	ATP 2/WVN1	2/4/03	\$791,654	\$60,956	\$852,610
0008	ATP3/WVN2	9/22/03	\$791,654	\$60,956	\$852,610
0011	ATP 1	3/11/03	\$306,945	\$18,317	\$325,262
0011	ATP 2/WVN 1	9/10/03	\$306,250	\$19,012	\$325,262
0011	ATP 3/WVN 2	11/6/03	\$306,250	\$19,012	\$325,262
0011	ATP 4/WVN 3	12/1/03	\$475,483	\$27,353	\$502,836
			Total Authorized Amount		\$1,680,708

Task Order 0011 ATP 4/WVN 3 adds monies to WADs 4 and 5.

1. Progress Made This Reporting Period.

WAD 01

Malcolm Pirnie

On November 25, 2003, the twelfth set of Earned Value (EV) curves and Progress Report covering the period from October 8, 2003 through November 7, 2003, as well as an invoice covering the same period, were submitted to the USACE and USEPA.

On December 1, 2003, a revised schedule (updated as of November 7, 2003) was posted to the digital library.

WAD 02

Malcolm Pirnie

On November 10, 2003, a narrowed down list of NJDEP properties that Malcolm Pirnie would like to get information for was sent to the USEPA and USACE.

On December 4, 2003, approval was received from the USEPA to post all of the Ventron/Velsicol documents to the public digital library. Upload of these documents began on December 5, 2003. In addition, a statement was added to the main library page on ourpassaic.org that Berry's Creek is not located on the Passaic River, but is located on the Hackensack River.

Throughout this period, Malcolm Pirnie and Battelle (see below) continued work on the data quality scheme. This includes reviewing the existing historical data, mapping the existing sampling locations, and beginning the data quality checklist. It is anticipated that a memo describing the scheme will be submitted to the USEPA and USACE by December 19, 2003.

HydroQual

HydroQual conducted the following work during the reporting period:

Conservative mass balance modeling of six chemicals including PCB77, PCB153, TCDD, OCDD, Pyrene and BAP was continued. Model results were analyzed, which led to the refinement of some of the forcing functions. Also, the flux of chemical from the sediment via particle resuspension was adjusted, based on model results. Communication with the CARP project is ongoing. The report outline is: Executive Summary, Introduction, Data Analysis, Phase I Mass Balance Modeling, Conclusions, and References. Most of the appendices and basic generic texts are finished; a preliminary version of the results and discussions will be completed shortly and will be circulated internally for review and adjustments as needed. Preliminary conclusions of the study have been discussed with senior members of the project team including Dominic Di Toro.

Battelle

During the reporting period, Battelle has been working on an approach to the data quality scheme task.

WAD 03

Malcolm Pirnie

On November 17 and 19, 2003, acceptance letters were sent to Richard Bopp, Bruce Brownawell, Jonathan Butcher, Frank Gobas, John Henningson, Wilbert Lick, Robert Mason, and Richard Luthy to serve on the technical advisory team.

On November 25, 2003, a conference call was held with USEPA (Alice Yeh), NJDOT OMR (Lisa Baron), USACE-KC District (Beth Buckrucker), USACE-NY District (Ron Brattain), Malcolm Pirnie (Bruce Fidler, Lisa Szegedi-Greco, Solomon Gbondo-Tugbawa, Scott Thompson, Amy Atamian, Mike Chung, and Mike Barone), HydroQual (Paul Anid and Ferdi Hellweger), Battelle (Tom Gulbransen and Suzanne Deveney), and TAMS/Earth Tech (Mike Thiagaram, Mark Moese, Maheyar Bilimoria, Ed Garvey, and Celeste Foster) in order to discuss gaps in the various data sets currently available for the project. A summary of the conference call, as well as a list of the action items resulting from this call, can be found on PREmis in the calendar.

Battelle

Subtasks 4.2b, 4.2c, and 4.2d have been completed. A problem with missing linkages in the historical database previously exported into PREmis was revealed when Pirnie staff attempted to access data to create maps. The linkages were corrected and the database was repopulated and re-posted onto PREmis, in several iterations. A QAQC audit was conducted on the repopulated database to verify that the MS Access database in PREmis was complete and accurate, as compared to the historical data stored in Battelle's Oracle database. QC check scripts were written and run; the results of the audit were summarized and provided to Pirnie in a memo dated December 9, 2003.

Subtasks 4.1b, Establish Data Quality Scheme, and 4.1c, Determine Relevance of Each Report, have been completed. The quality criteria checklist has been completed, scripts have been designed to screen the data for the checklist criteria, and the 58 selected studies were screened for data quality characteristics. The subtask deliverable is a technical memorandum describing the data screening procedure and results. This memo was submitted to Malcolm Pirnie on December 12, 2003 for incorporation of their work on this task into a single project deliverable.

WAD 04

Malcolm Pirnie

During the reporting period, Malcolm Pirnie, Battelle, and HydroQual personnel participated in two conference calls with Passaic River Project Team Members from the United States Environmental Protection Agency (USEPA) Region 2 and the United States Army Corp of Engineers - Kansas City District (USACE - KC). These conference calls are scheduled for every other Tuesday at 9:30 EST. (WADs 3 and 4)

On November 12, 2003, additional negotiations on WADs 04-06 were held between Alice Yeh (USEPA), Beth Buckrucker (USACE – KC District), Trudy Shannon (USACE – KC District), Bruce Fidler (Malcolm Pirnie), and Lisa Szegedi-Greco (Malcolm Pirnie). The majority of these negotiations were focused on WAD 05. (WADs 04-06)

On November 13, 2003, Malcolm Pirnie submitted a breakdown comparison of Welsbach and PREmis costs, as well as a schedule for each task, to the USEPA and USACE.

On November 18, 2003, the final proposal for WADs 4 and 5, along with the ATP, WVN, and chronology, were sent to the USACE and USEPA.

Starting on December 2, 2003, updates were made to the cost track table, EV units, EV report, progress report, and invoice to account for monies that were received for WADs 04 and 05.

On December 10, 2003, a memo that describes a review of several off-the-shelf field application products, as well as functional and technical that are critical to the project, was sent to the USEPA and USACE.

On December 12, 2003, additional negotiations on WADs 04-06 were held between Alice Yeh (USEPA), Beth Buckrucker (USACE – KC District), Jason Sheeley (USACE – KC District), Bruce Fidler (Malcolm Pirnie), Rob Danowski (Malcolm Pirnie), and Lisa Szegedi-Greco (Malcolm Pirnie). These negotiations were focused on WAD 06. (WADs 04-06)

Battelle and HydroQual

During the reporting period, Malcolm Pirnie, Battelle, and HydroQual personnel participated in various conference calls with Passaic River Project Team Members. See the Malcolm Pirnie section above.

WAD 05

Malcolm Pirnie

On December 2, 2003, a conference call was held with USEPA (Alice Yeh, Marian Olsen, and Christopher Stitt), USACE (Beth Buckrucker), Malcolm Pirnie (Bruce Fidler, Lisa Szegedi-Greco, Rich Califano, and Michael Chung), and Battelle (Nancy Bonnevie, Virginia Lau, and Don Gunster) to discuss aspects of the human health and ecological risk assessment that will be conducted for the Lower Passaic River Restoration Project. A summary of the conference call, as well as a list of the action items resulting from this call, can be found on PREmis in the calendar.

2. Issues and Recommended Solutions (or Outstanding Issues).

- **Technical**

None

- **Schedule**

Problem: WADs 04 and 05 – Although monies have been awarded for these WADs, technical work cannot begin until monies are also awarded for WAD 06.

Solution: WAD 06 was negotiated on December 12, 2003. An updated scope will be submitted by December 19, 2003. Once this scope is approved, a revised cost proposal can be submitted and approved.

- **Funding**

Problem: WAD 02, WO 07, WE 01, Evaluate HEP/CARP Modeling Framework - This task is slightly over budget due to the two sequential reviews conducted by Malcolm Pirnie, one of them by a sediment modeling staff member new to the project.

Solution: Since this was the most critical of the reviews of modeling work in terms of how other team partners / agencies will understand the effort, reviews of other modeling products can be cut back to balance the expenditures.

Problem: WAD 03, WO 01, WE 01, Project Management - This task is slightly over budget since it was only budgeted through the end of October 2003. Since WAD 04 Project Management monies were not awarded until December 1, 2003, this task is over by one month of management dollars.

Solution: An ATP/WVN will be required to move monies into this task.

Problem: WAD 03, WO 08, WE 01, Establish Technical Expert Team – This task appears to be over budget since time has been charged, but no earned value has been taken yet.

Solution: The budget variance will decrease once subcontracts are established since earned value cannot be taken until each subcontract is executed.

3. Anticipated/Planned Activities in Next 30 Days

Malcolm Pirnie

- December 15, 2003 – A boat trip is scheduled on the Passaic River.
- December 18, 2003 – Malcolm Pirnie will submit the revised proposal scope document for Task Order 0011, WAD 6 to the USACE. A full revised proposal (including cost and chronology tables) will be submitted once the USACE approves the revised proposal scope. (WAD 06)
- December 16, 2003 – A CARP Management Committee meeting will be held at the Hudson River Foundation. (WAD 04)
- December 19, 2003 – The data quality scheme memo will be submitted to the USACE and USEPA. (WAD 03)
- December 19, 2003 – All Ventron/Velsicol documents will be uploaded to the digital library in PREmis. (WAD 02)
- December 31, 2003 – NJDEP will set a date for Malcolm Pirnie to conduct a file search for the narrowed down list of NJDEP properties. (WAD 02)
- January 2, 2003 – USACE will award monies toward Task Order 0011, WAD 06.
- January 9, 2003 – Revised contracts will be completed between Malcolm Pirnie and HydroQual and Battelle for work being conducted under Task Order 0011,

WADs 04 and 05. A contract will be completed between Malcolm Pirnie and TAMs for Task Order 0011, WAD 04. (WAD 04)

- January 9, 2003 – USEPA and Malcolm Pirnie will receive a letter from RSCC granting formal permission for several requested modifications to the CLP program. (WAD 02)
- January 16, 2003 – The first set of contracts will be submitted to the technical advisory team members for their review and signature. (WAD 03)

HydroQual

- December 31, 2003 – The Mass Balance Modeling Summary will be submitted.

4. Key Personnel Additions or Changes

None

5. Attachments

Summary of Task Order No. 0008, Page 1

Summary of WADs 1 and 2, Task Order 0008, Page 2

Summary of WAD 1 Task Order 0008 – Project Management Administration, Page 3

Summary of WAD 2 Task Order 0008 – RI/FS Services, Page 4

Summary of Task Order No. 0011, Page 1

Summary of WADs 3, 4, and 5, Task Order 0011, Page 2

Summary of WAD 3, Task Order 0011 – Additional RI/FS Services, Page 3

Summary of WAD 4, Task Order 0011 – Project Management and Community Relations, Page 4

Summary of WAD 5, Task Order 0011 – Technical Studies & Investigations, Page 5

SUMMARY OF TASK ORDER NO. 0008
MANAGEMENT, SUPPORT, AND INVESTIGATION
11/08/03-12/12/03

Task Order No. 0008	Current Budget Cost (BC)	Scheduled Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Estimate to Complete (ETC)	Estimate at Completion (EAC)
WAD 01 (Project Management Administration)	\$ 221,783	\$ 224,727	\$ 226,376	99.0%	\$ 216,444	\$ 2,342	\$ 228,718
WAD 02 (RI/FS Services)	\$ 569,654	\$ 554,340	\$ 567,779	98.7%	\$ 561,097	\$ 9,118	\$ 576,897
NA (Fee)	\$ 60,787	\$ 59,949	\$ 59,876	98.9%	NA	\$ 917	\$ 61,791
Total (Less Fee)	\$ 791,437	\$ 779,068	\$ 794,155	98.9%	\$ 777,541	\$ 11,460	\$ 805,615

Task Order No. 0008	Cost Variance (CVAR)	Schedule Variance (SVAR)	Cost Performance Index (CPI)	Schedule Performance Index (SPI)	CPI/SPI Ratio
WAD 01 (Project Management Administration)	\$ (6,829)	\$ (7,920)	0.97	0.98	0.99
WAD 02 (RI/FS Services)	\$ (5,643)	\$ 7,006	0.99	1.01	0.98
NA (Fee)	NA	NA	NA	NA	NA
Total (Less Fee)	\$ (12,472)	\$ (914)	0.98	1.00	0.98

Prepared 12/26/03

	MPI	HQI	Battelle	Total
Total Budget	\$553,244	\$275,935	\$23,432	\$852,611
Total Expended	\$538,701	\$295,271	\$18,057	\$852,029
Remaining Funds	\$14,543	-\$19,336	\$5,375	\$582
Schedule Status	On Schedule	Work slightly behind schedule	On Schedule	

Calculations:

PCT = (BCWP/BC) X 100*

ETC = (BC-BCWP)/(BCWP/ACWP)**

It should be noted that this calculation is conducted at a work element level, not a work order level.

CAC = ACWP + ETC

CVAR=ACWP-BCWP

SVAR=BCWS-BCWP

CPI = BCWP/ACWP

SPI = BCWP/BCWS

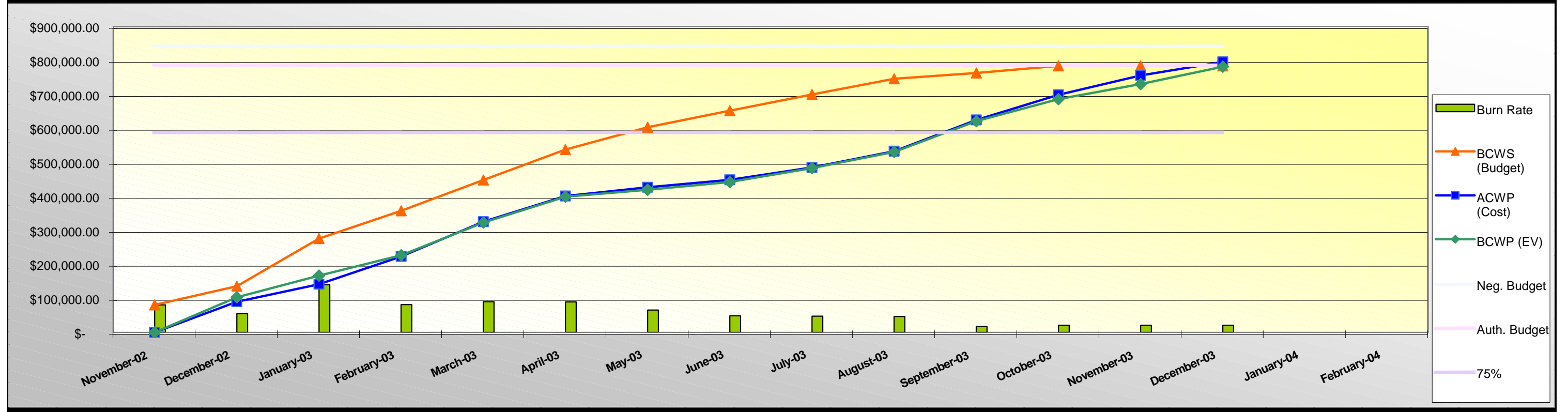
* - PCT for Fee is calculated less travel, since travel expense costs are not fee-bearing.

** - Generally, this formula is used to calculate ETC; however, wherever warranted a judgmental ETC is estimated.

Month	Burn Rate - WAD01	Burn Rate - WAD02	Burn Rate - Total
Nov-02	\$ 34,181	\$ 46,654	\$ 80,835
Dec-02	\$ 16,828	\$ 38,149	\$ 54,977
Jan-03	\$ 27,265	\$ 113,045	\$ 140,310
Feb-03	\$ 14,548	\$ 67,366	\$ 81,915
Mar-03	\$ 14,548	\$ 75,705	\$ 90,253
Apr-03	\$ 13,617	\$ 70,918	\$ 84,535
May-03	\$ 22,616	\$ 55,405	\$ 78,021
Jun-03	\$ 14,548	\$ 34,263	\$ 48,812
Jul-03	\$ 18,570	\$ 28,976	\$ 47,546
Aug-03	\$ 17,664	\$ 28,895	\$ 46,559
Sep-03	\$ 14,548	\$ 2,400	\$ 16,949
Oct-03	\$ 18,836	\$ 2,108	\$ 20,945
Burn Rate - Total by WAD	\$ 227,770	\$ 563,885	\$ 791,655

Cost/Schedule Through December 12, 2003

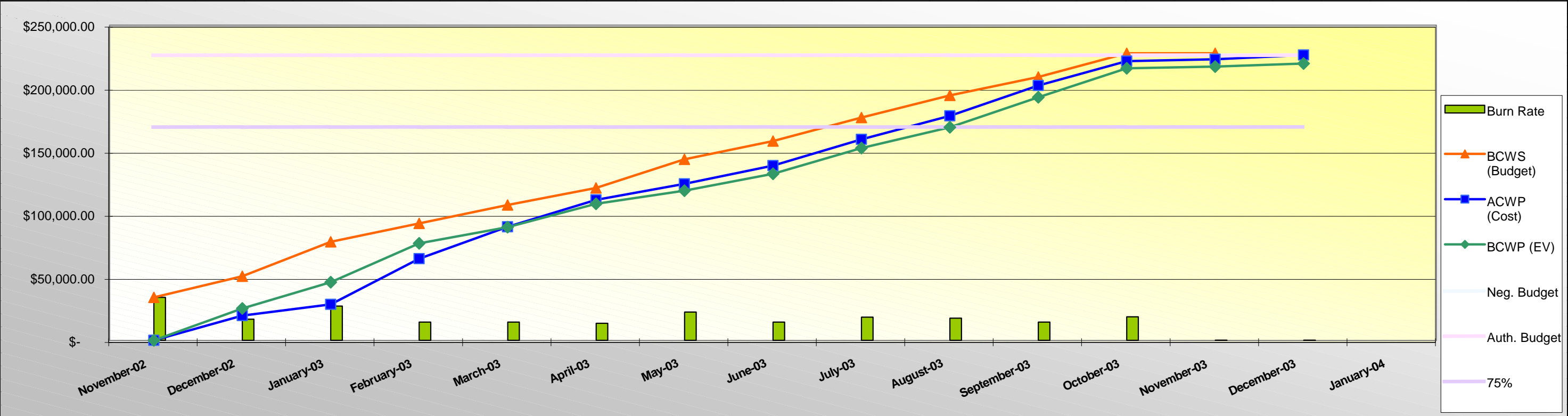
Summary of WADs 1 and 2 Task Order 0008



Note: The earned value curves depict labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.

Cost/Schedule Through December 12, 2003

Summary of WAD 1 Task Order 0008 - Project Management Administration

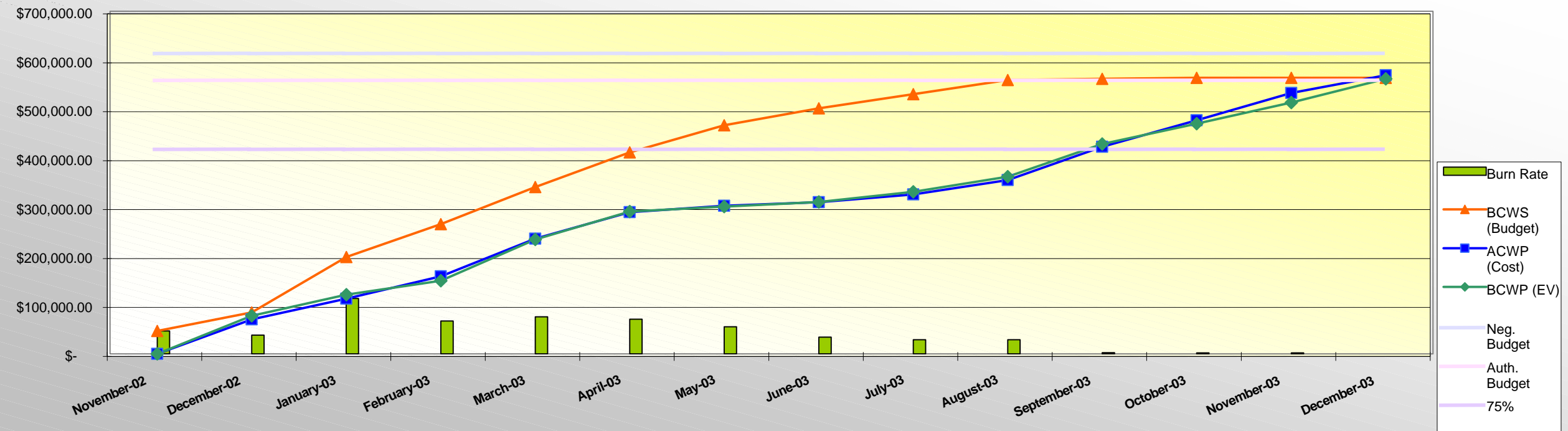


WAD	Work Order	Work Element	Description	Current Budgeted Cost (BC)	Schedule Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Cost to Complete (ETC)	Cost at Complete (CAC)	Cost Variance (CVAR)	Schedule Variance (SVAR)
1	1	00	Project Administration/Reporting	\$ 140,939.25	\$ 138,313.34	\$ 147,017.58	100.0%	\$ 140,939.25	\$ -	\$ 147,017.58	\$ (6,078.33)	\$ 2,625.91
1	2	00	Meetings	\$ 23,495.00	\$ 23,496.00	\$ 22,343.75	91.9%	\$ 21,593.00	\$ 1,968.13	\$ 24,311.88	\$ (750.75)	\$ (1,903.00)
1	3	00	Technical Support	\$ 27,716.00	\$ 35,901.00	\$ 27,710.56	100.0%	\$ 27,710.56	\$ 5.44	\$ 27,716.00	\$ -	\$ (8,190.44)
1	0	00	Labor Totals	\$ 192,150.25	\$ 197,710.34	\$ 197,071.89	99.0%	\$ 190,242.81	\$ 1,973.57	\$ 199,045.46	\$ (6,829.08)	\$ (7,467.53)
1	0	00	Expenses(Computer/Reproduction)	\$ 24,972.00	\$ 25,056.00	\$ 24,603.57	98.5%	\$ 24,603.57	\$ 368.43	\$ 24,972.00	\$ -	\$ (452.43)
1	0	00	Travel and Lodging Expenses	\$ 3,000.00	\$ 300.00	\$ 3,102.45	103.4%	\$ 3,102.45	\$ (102.45)	\$ 3,000.00	\$ -	\$ 2,802.45
1	0	00	Subcontractor Fee	\$ 1,661.00	\$ 1,661.00	\$ 1,598.01	96.2%	\$ 1,598.01	\$ 62.99	\$ 1,661.00	\$ -	\$ (62.99)
1	0	00	WAD Fee(Less Travel)	\$ 17,369.78	\$ 17,821.31	\$ 17,187.71	99.0%	\$ -	\$ 187.36	\$ 17,921.40	\$ -	\$ -
1	0	00	Job To DateTotals(Less Fee)	\$ 221,783.25	\$ 224,727.34	\$ 226,375.92	99.0%	\$ 219,546.84	\$ 2,342.00	\$ 228,717.92	\$ (6,829.08)	\$ (7,919.96)

Note: The earned value curves depict labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.

Cost/Schedule Through December 12, 2003

Summary of WAD 2 Task Order 0008 - RI/FS Services



WAD	Work Order	Work Element	Description	Current Budgeted Cost (BC)	Schedule Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Cost to Complete (ETC)	Cost at Complete (CAC)	Cost Variance (CVAR)	Schedule Variance (SVAR)
2	1	00	Pre-Expansion Activity Plan	\$ 49,545.44	\$ 49,545.44	\$ 49,543.44	100.0%	\$ 49,545.44	\$ -	\$ 49,543.44	\$ 2.00	\$ -
2	2	00	Inventory Historical Data	\$ 80,618.08	\$ 80,617.89	\$ 81,057.21	98.5%	\$ 79,390.60	\$ 1,253.25	\$ 82,310.46	\$ (1,666.61)	\$ (1,227.29)
2	3	00	Evaluate HEP/CARP Database	\$ 29,938.03	\$ 29,938.35	\$ 29,938.14	100.0%	\$ 29,938.03	\$ -	\$ 29,938.14	\$ (0.11)	\$ (0.32)
2	5	00	Develop Detailed Conceptual Model	\$ 88,894.00	\$ 88,894.00	\$ 88,540.36	99.2%	\$ 88,178.76	\$ 718.17	\$ 89,258.53	\$ (361.60)	\$ (715.24)
2	6	00	Prelim Contaminant Mass Balance and In-Situ Mass Quantification	\$ 164,160.00	\$ 150,676.06	\$ 159,187.01	97.9%	\$ 160,654.00	\$ 3,473.99	\$ 162,661.00	\$ 1,466.99	\$ 9,977.94
2	7	00	Evaluate HEP/CARP Tier 2 Modeling Framework	\$ 11,214.00	\$ 11,214.00	\$ 15,773.87	100.0%	\$ 11,214.00	\$ -	\$ 15,773.87	\$ (4,559.87)	\$ -
2	8	00	Development and Implementation Website/GIS	\$ 89,888.52	\$ 89,888.52	\$ 89,752.62	99.3%	\$ 89,229.22	\$ 663.17	\$ 90,415.79	\$ (523.40)	\$ (659.30)
2	10	00	Quality Control Plan	\$ 12,329.81	\$ 12,329.81	\$ 12,330.32	100.0%	\$ 12,329.81	\$ 0.00	\$ 12,330.32	\$ (0.51)	\$ -
2	0	00	Labor Totals	\$ 526,587.88	\$ 513,104.07	\$ 526,122.97	98.8%	\$ 520,479.86	\$ 6,108.57	\$ 532,231.54	\$ (5,643.11)	\$ 7,375.79
2	0	00	Expenses(Non-Travel)	\$ 16,133.00	\$ 13,493.36	\$ 13,123.74	81.3%	\$ 13,123.74	\$ 3,009.26	\$ 16,133.00	\$ -	\$ (369.62)
1	0	00	Travel and Lodging Expenses	\$ 2,147.00	\$ 2,738.00	\$ 1,039.26	48.4%	\$ 1,039.26	\$ 1,107.74	\$ 2,147.00	\$ -	\$ (1,698.74)
1	0	00	Subcontractor Fee	\$ 24,786.00	\$ 25,005.00	\$ 27,493.29	110.9%	\$ 27,493.29	\$ (2,707.29)	\$ 24,786.00	\$ -	\$ 2,488.29
2	0	00	WAD Fee(Less Travel)	\$ 43,417.67	\$ 42,127.79	\$ 42,688.29	98.3%	\$ -	\$ 729.43	\$ 43,869.16	\$ -	\$ -
2	0	00	Job To Date Totals(Less Fee)	\$ 569,653.88	\$ 554,340.43	\$ 567,779.26	98.7%	\$ 562,136.15	\$ 9,117.83	\$ 576,897.09	\$ (5,643.11)	\$ 7,006.17

Note: The earned value curves depicts labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.

SUMMARY OF TASK ORDER NO. 0011
ADDITIONAL RI/FS SERVICES
11/08/03-12/12/03
Progress Report #13

Task Order No. 0011	Current Budget Cost (BC)	Scheduled Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Estimate to Complete (ETC)	Cost at Completion (CAC)
WAD 03 (Project Management Adminstration)	\$ 306,249	\$ 258,312	\$ 197,491	57.29%	\$ 175,465	\$ 145,804	\$ 343,295
WAD 04 (Project Management Adminstration)	\$ 184,741	\$ 27,431	\$ 6,322	6.13%	\$ 11,330	#DIV/0!	#DIV/0!
WAD 05 (Technical Studies)	\$ 290,745	\$ -	\$ 4,393	\$ -	\$ -	#DIV/0!	#DIV/0!
NA (Fee)	\$ 46,365	\$ 17,770	\$ 11,291	23.90%	NA	#DIV/0!	\$ 23,639
Total (Less Fee)	\$ 781,735	\$ 285,743	\$ 208,206	23.90%	\$ 186,796	#DIV/0!	#DIV/0!

Task Order No. 0011	Cost Variance (CVAR)	Schedule Variance (SVAR)	Cost Performance Index (CPI)	Schedule Performance Index (SPI)	CPI/SPI Ratio
WAD 03 (Project Management Adminstration)	\$ (22,026)	\$ (82,976)	0.89	0.68	1.31
WAD 04 (Project Management Adminstration)	\$ 5,008	\$ (16,100)	1.79	0.41	4.34
WAD 05 (Technical Studies)	\$ (4,393)	\$ (252)	0.00	#DIV/0!	#DIV/0!
NA (Fee)	NA	NA	NA	NA	NA
Total (Less Fee)	\$ (21,411)	\$ (99,328)	0.90	0.65	1.37

Prepared 12/26/03

Note: The calculations and curve for WADs 4 and 5 will not be accurate until more costs have been incurred. As a result of not yet beginning many of the tasks, numerous equations currently indicate division by zero. This also affects the accuracy of the ETC, CAC, CPI, and SPI.

Note: A schedule for the work cannot be determined until WAD 6 is negotiated.

	MPI	Battelle	HQL	TAMS	Total
Total Budget	\$544,648	\$170,949	\$105,638	\$6,865	\$828,100
Total Expended	\$136,910	\$82,163	\$0	\$0	\$219,073
Remaining Funds	\$407,738	\$88,786	\$105,638	\$6,865	\$609,027
Schedule Status	NA	NA	NA	NA	NA

Calculations:

PCT = (BCWP/BC) X 100*

ETC = (BAC-BCWP)/(BCWP/ACWP)**

CAC = ACWP + ETC

CVAR=BCWP-ACWP

SVAR=BCWP-BCWS

CPI = BCWP/ACWP

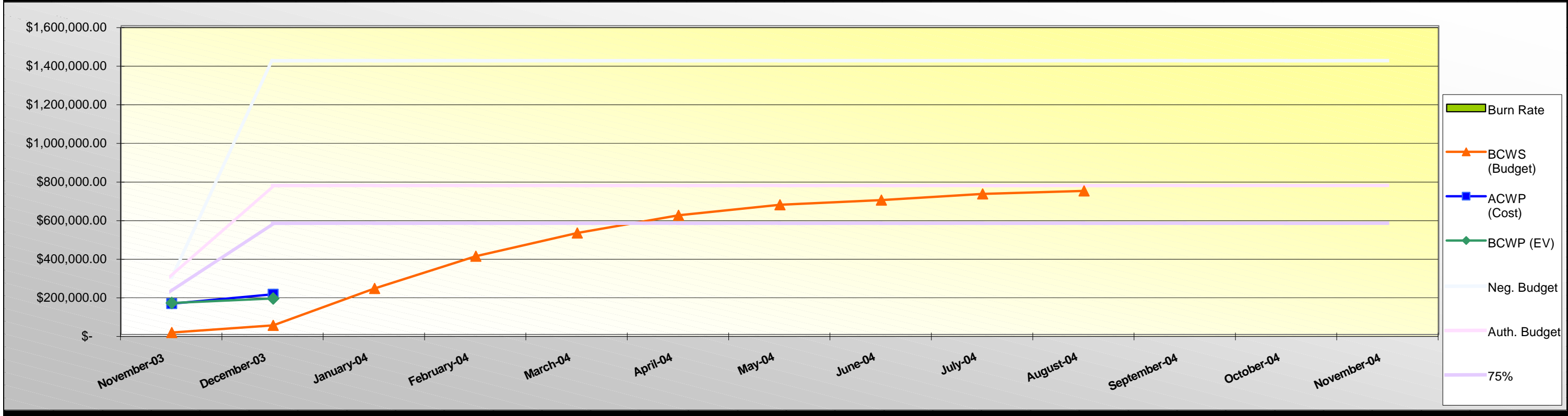
SPI = BCWP/BCWS

* - PCT for Fee is calculated less travel, since travel expense costs are not fee-bearing.

** - Generally, this formula is used to calculate ETC; however, wherever warranted a judgmental ETC is estimated.

Cost/Schedule Through December 12, 2003

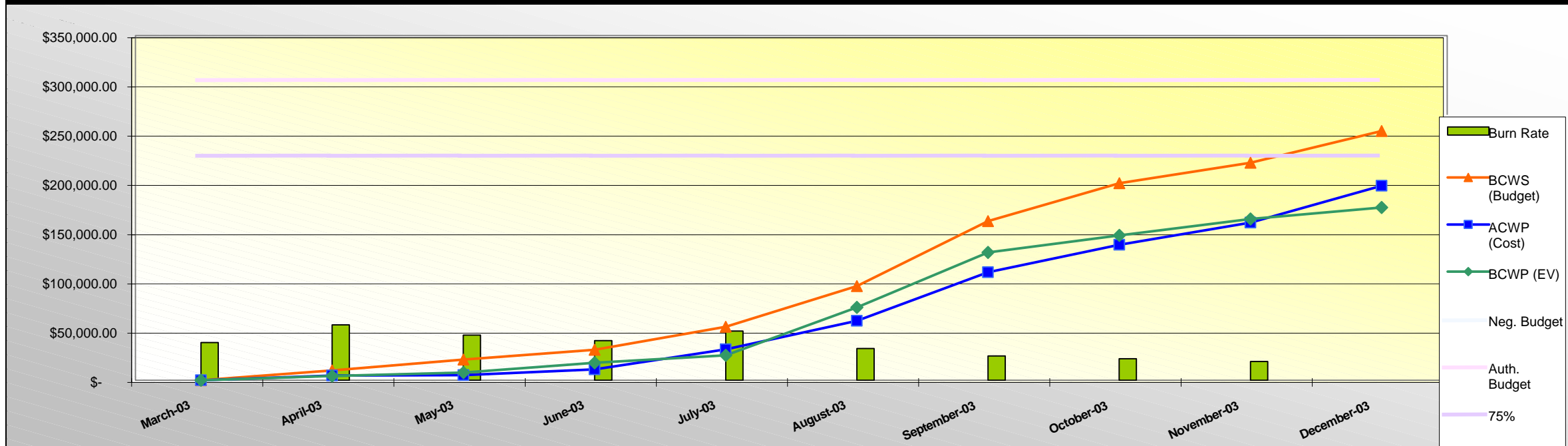
Summary of WADs 3, 4, and 5 Task Order 0011



Note: The earned value curves depict labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.

Cost/Schedule Through December 12, 2003

Summary of WAD 3 Task Order 0011 - Additional RI/FS Services

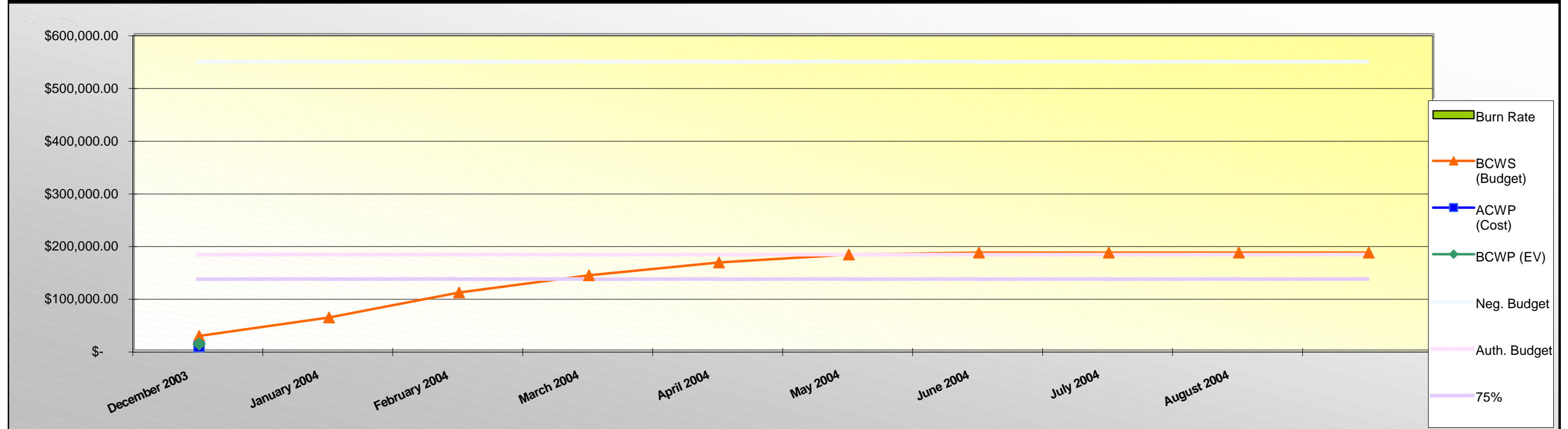


WAD	Work Order	Work Element	Description	Current Budgeted Cost (BC)	Schedule Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Cost to Complete (ETC)	Cost at Complete (CAC)	Cost Variance (CVAR)	Schedule Variance (SVAR)
3	1	00	Project Administration/Report	\$ 30,363.00	\$ 29,328.19	\$ 40,138.87	100.0%	\$ 30,363.00	\$ -	\$ 40,138.87	\$ (9,775.87)	\$ 1,034.81
3	2	00	Meetings	\$ 8,654.00	\$ 6,462.00	\$ 2,168.00	37.3%	\$ 3,231.00	\$ 3,638.83	\$ 5,806.83	\$ 1,063.00	\$ (3,231.00)
3	3	00	PEAP and Schedule	\$ 11,099.00	\$ 11,099.00	\$ 12,260.62	100.0%	\$ 11,099.00	\$ -	\$ 12,260.62	\$ (1,161.62)	\$ -
3	4	00	Populate & QC Database	\$ 60,888.00	\$ 56,219.33	\$ 41,563.26	68.13%	\$ 41,483.41	\$ 19,441.94	\$ 61,005.20	\$ (79.85)	\$ (14,735.92)
3	4.1	00	Develop Data Scheme	\$ 16,673.00	\$ 16,673.00	\$ 10,376.41	62.23%	\$ 10,376.41	\$ 6,296.59	\$ 16,673.00	\$ -	\$ (6,296.59)
3	4.2	00	Populate Analytical Database	\$ 44,215.00	\$ 39,546.33	\$ 31,186.85	70.4%	\$ 31,107.00	\$ 13,141.65	\$ 44,328.50	\$ (79.85)	\$ (8,439.33)
3	5	00	Integration with HEP/CARP	\$ 156,567.00	\$ 120,294.11	\$ 78,625.17	50.5%	\$ 79,013.34	\$ 77,172.66	\$ 155,797.83	\$ 388.17	\$ (41,280.77)
3	6	00	Establish Technical Expert Te	\$ 23,740.00	\$ 23,740.00	\$ 12,246.42	0.0%	\$ -	\$ #DIV/0!	\$ #DIV/0!	\$ (12,246.42)	\$ (23,740.00)
1	0	00	Labor Totals	\$ 291,311.00	\$ 247,142.63	\$ 187,002.34	56.7%	\$ 165,189.75	\$ 142,775.01	\$ 329,777.35	\$ (21,812.59)	\$ (81,952.88)
1	0	00	Expenses(Computer/Repro	\$ 7,929.00	\$ 5,923.49	\$ 4,900.20	61.80%	\$ 4,900.20	\$ 3,028.80	\$ 7,929.00	\$ -	\$ (1,023.29)
1	0	00	Travel and Lodging Expens	\$ -	\$ -	\$ 213.18	#DIV/0!	\$ -	\$ #DIV/0!	\$ #DIV/0!	\$ (213.18)	\$ -
1	0	00	Subcontractor Fee	\$ 6,995.00	\$ 5,246.25	\$ 5,375.16	76.84%	\$ 5,375.16	\$ 1,619.84	\$ 6,995.00	\$ -	\$ 128.91
1	0	00	WAD Fee(Less Travel)	\$ 18,589.76	\$ 16,005.87	\$ 10,566.54	56.8%	\$ -	\$ 10,206.27	\$ 23,639.44	\$ -	\$ -
1	0	00	Job To DateTotals(Less Fee	\$ 306,249.00	\$ 258,312.37	\$ 197,490.88	57.3%	\$ 175,465.11	\$ 145,803.81	\$ 343,294.69	\$ (22,025.77)	\$ (82,976.17)

Note: The earned value curves depicts labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.

Cost/Schedule Through December 12, 2003

Summary of WAD 4 Task Order 0011 - Additional RI/FS Services

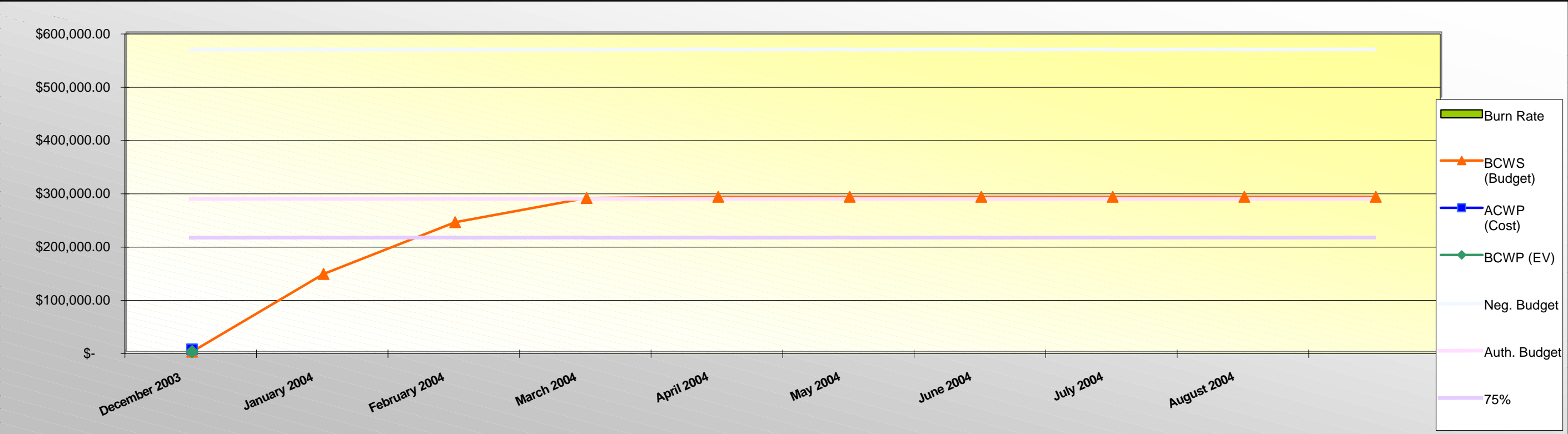


WAD	Work Order	Work Element	Description	Current Budgeted Cost (BC)	Schedule Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Cost to Complete (ETC)	Cost at Complete (CAC)	Cost Variance (CVAR)	Schedule Variance (SVAR)
4	1	00	Project Administration/Report	\$ 137,388.00	\$ 26,762.20	\$ 5,175.91	7.4%	\$ 10,184.39	\$ 64,647.41	\$ 69,823.32	\$ 5,008.48	\$ (16,577.81)
4	2	00	Community Relations	\$ 25,165.50	\$ -	\$ -	-	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ -
4	2.1	00	Communication	\$ 12,176.50	\$ -	\$ -	0.00%	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ -
4	2.2	00	Community Involvement Plan	\$ 12,989.00	\$ -	\$ -	-	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ -
4	3	00	Technical Support	\$ 21,519.00	\$ -	\$ 1,146.08	8.18%	\$ 1,146.08	\$ 20,372.92	\$ 21,519.00	\$ -	\$ 1,146.08
1	0	00	Labor Totals	\$ 184,072.50	\$ 26,762.20	\$ 6,321.99	6.2%	\$ 11,330.47	\$ 96,383.77	\$ 102,705.76	\$ 5,008.48	\$ (15,431.73)
1	0	00	Travel and Lodging Expenses	\$ 668.50	\$ 668.50	\$ -	0	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ (668.50)
1	0	00	WAD Fee(Less Travel)	\$ 11,773.00	\$ 1,764.16	\$ 724.68	6.2%	\$ -	6746.86	7189.40	\$ -	\$ -
1	0	00	Job To Date Totals(Less Fee)	\$ 184,741.00	\$ 27,430.70	\$ 6,321.99	6.1%	\$ 11,330.47	#DIV/0!	#DIV/0!	\$ 5,008.48	\$ (16,100.23)

Note: The earned value curves depicts labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.

Cost/Schedule Through December 12, 2003

Summary of WAD 5 Task Order 0011 - Additional RI/FS Services



WAD	Work Order	Work Element	Description	Current Budgeted Cost (BC)	Schedule Budget Cost (BCWS)	Cost to Date (ACWP)	Percent Complete (PCT)	Earned Value (BCWP)	Cost to Complete (ETC)	Cost at Complete (CAC)	Cost Variance (CVAR)	Schedule Variance (SVAR)
5	1	00	RI/FS Work Plan Prep	\$ 281,048.00	\$ -	\$ 3,996.71	0.0%	\$ -	#DIV/0!	#DIV/0!	\$ (3,996.71)	\$ -
5	1.4	00	Modeling Plan	\$ 110,433.00	\$ -	\$ -	-	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ -
5	1.5	00	Work Plan and Field Sampling	\$ 44,188.00	\$ -	\$ 1,109.66	-	\$ -	#DIV/0!	#DIV/0!	\$ (1,109.66)	\$ -
5	1.6	00	Quality Assurance Project Pla	\$ 22,567.00	\$ -	\$ 1,194.38	-	\$ -	#DIV/0!	#DIV/0!	\$ (1,194.38)	\$ -
5	1.7	00	Health and Safety Plan (HASP)	\$ 4,550.00	\$ -	\$ -	0.00%	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ -
5	2	00	Preliminary Risk Assessment	\$ 9,445.00	\$ -	\$ 396.76	0.00%	\$ -	#DIV/0!	#DIV/0!	\$ (396.76)	\$ -
1	0	00	Labor Totals	\$ 290,493.00	\$ -	\$ 4,393.47	0.0%	\$ -	#DIV/0!	#DIV/0!	\$ (4,393.47)	\$ -
1	0	00	Travel and Lodging Expens	\$ 252.00	\$ -	\$ -	0	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ (252.00)
1	0	00	WAD Fee(Less Travel)	\$ 15,580.00	\$ -	\$ -	0.0%	\$ -	#DIV/0!	#DIV/0!	\$ -	\$ -
1	0	00	Job To DateTotals(Less Fe	\$ 290,745.00	\$ -	\$ 4,393.47	0.0%	\$ -	#DIV/0!	#DIV/0!	\$ (4,393.47)	\$ (252.00)

Note: The earned value curves depicts labor costs and expenses to date. The percent complete for the WAD is a statistical calculation.